

Socio-humanistic care for ecological optimization in Heihe river basin

ZHONG, Jinwen

Department of Ethnic language and culture, Central University of Nationalities

1. Basic condition of the Yugu

The Yugu, who call themselves Sarag Yugur, is one of the Chinese ethnic groups whose population is very small. According to the national census in 1990, the total population of the Yugu is 12,297, which is the 48th biggest of 55 ethnic groups in China. They live mainly in Sunan Yugu autonomous prefecture of Gansu province, where is located at the upper reaches of Heihe river. They were named Yugu when the autonomous prefecture was founded in 1953, the meaning of which is “rich and hard” in Han language.

The Yugu have two folk languages. Those who live in the western part of the prefecture use western Yugu language that belongs to Turkish languages, whereas those who live in the eastern part use eastern Yugu language that belongs to Mongolian languages. In these days, most of the Yugu people use Han language, in some cases even among the Yugu themselves.

Ancestor of the Yugu is Huangtou (Yellow-head) Ugur, a segment of the ancient Ugur. In the 16th century (Ming dynasty), they moved from Xinjiang to the boarder area of Gansu, Xinjiang, and Qinghai Provinces.

The substance of the Yugu is mainly herding. In the plain area, however, accompanied with the economic reform, pastoral production is changing to agricultural production and in some areas, now the situation is half-agricultural half-pastoral.

2. Some problems in the action for vegetation recovery and anti-desertification

1) *Problem of labor skill training in the process of production mode change*

The research for estimating total effect of water reservoir forest in Qilian Mountains recognizes that to decrease population pressure in the forest area of Qilian Mountains, people who live in the forest area of Qilian Mountains, especially 378 households 2446 people of eastern core area should emigrate another place needed, and that such a action will decrease the forestay-herding contradiction and create better social environment to protect and develop the forest resources in Qilian Mountains better. Zhangye district once planned to emigrate the Yugu herders who lived in the core area of reservoir forest in Qilian Mountains to the oasis agricultural area and to change them into farmers on the assumption that they were subsidized 15 thousand Yuan per household, but this plan could not be realized. Its main problem was that labor experience and skill of minority people, whose substance had been herding for a long time, was accumulated about herding, so there remained the problem of labor-force change even if socio-economic structure could be regulated. If this problem is not to be taken into consideration, there must be return of emigrants and more severe destruction of ecology.

2) Problem of the change of sense of value

Each ethnic group has their own specific sense of value, which is closely related to its specific cultural tradition and production-life mode. The Yugu people recognize herding as essential. In the early 80's as the price of animal products ---especially cashmere--- rose, pastoral production brought the herders abundant economic profit. Driven by profit inducement, herders increased the number of livestock and developed pastoral production remarkably. This very development, especially rapid increase of goats, caused quick desertification of grassland. Destruction of the bush by goats led to destruction and flow of dunes. Today, to protect ecological environment and to recover vegetation, herders whose substance has been herding for generations leave from grassland and stop herding to engage in agricultural production as farmers. In this changing process of production mode, there is not only a problem about maladjusted change of labor power, but also a problem about change of sense of value. As herders has been recognizing that pastoral production is more profitable than agricultural production, to be a farmer from a herder means that his standard of living will be deteriorated, and this fact is relatively big shock to his traditional sense of value. Some Chinese specialists of agriculture recognize that cashmere is natural resource peculiar to China and has very high economic value, and that Chinese western arid area is a natural base of raising goats although there is no condition of it abroad. As of this, Chinese government must combine construction of ecological environment with economic development, taking ecological profit and practical profit of herders in the western area into consideration, and accelerate each development simultaneously.

3) Problem of coordination of inter-ethnic relation

Oases of Hexi corridor are mainly located at Shiyanhe, Heihe and Shulehe river basin. And dwellers of the oases are composed of different ethnic groups. Today, as to population distribution, water reservoir forest area of upper reaches and water concentration lake area of lower reaches are dominated by minority people; Yugu and Tibetan people in upper reaches, and Mongolian people in lower reaches. In oases of the midstream, about 4 million Han people live.

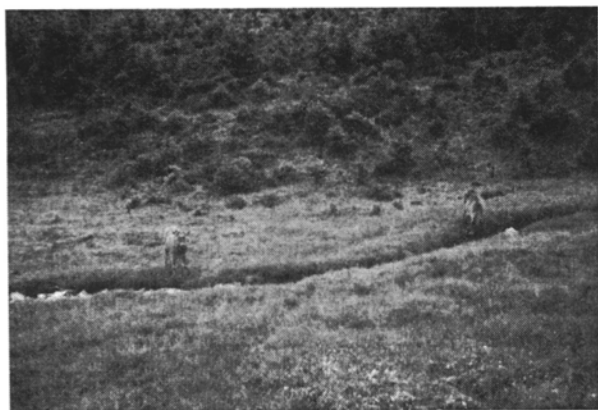
Now the research on ecological mechanism of vegetation recovery and action for anti-desertification recognizes as following; in water reservoir forest area, herding should retreat widely, and remaining herding should be based on improved species of grass, carrying out feeding in livestock barn or in fence, to decrease ecological destruction caused by herding, that is, the forestay-herding contradiction. At the same time, in extremely arid area where desertification is very heavy, villagers and animals should emigrate and stop herding, to carry out blockade protection and let vegetation recover by itself. In the midstream area, it is important to coordinate land-use structure, to utilize land resource reasonably, and to carry out water-saving irrigation and ecologically economic agriculture. These measures are not only effective, but also profitable for sustainable development of Heihe river basin. But such kind of action plan will easily cause another problem; in the process of coordinating population composition of Heihe river basin, most of dwellers that emigrate are minorities. So bad arrangement will affect inter-ethnic relationship.

4) Problem of compensation for ecological profit

The main part of anti-desertification project is ecological project, which requires long-term practice and sustainment, but the profit is public. To compensate the expenditure of performers of public ecological protection, to help out the cost of project, to coordinate adequately the profit relation between performers of public ecological protection and its recipients, and to enforce the sense of ecology and responsibility of the society, institution of compensation for ecological profit must be established as fast as possible in the ecological construction area. Here Sunan Yugu autonomous prefecture is illustrated as an example.

Sunan prefecture is located at northern foot of Qilian Mountains, southern part of Hexi corridor. 70% of Qilian Mountains is in the area of the prefecture; whole prefecture ranges across 5 districts and cities of Hexi, bordering on 15 prefectures and cities of Gansu and Qinghai. There are 33 rivers that form Shiyanghe, Shulehe and Heihe river systems, and the volume of water flowing out of the prefecture is 43 billion cubic meters per year. The water of Qilian Mountains that flows out via Sunan irrigates good field of over 700 thousand hecrares in Hexi corridor, supports over 4 million people, over 5 million animals, nonferrous metal base, and hundreds of mining and manufacturing companies. All of this water comes from water reservoir forest of Qilian Mountains.

As protecting and constructing forest of Qilian Mountains is very difficult only by local capacity, state should establish suitable laws and regulations to take measures for ecological compensation as soon as possible. Specifically, it should contain three aspects; firstly, to establish “fund for protection of water reservoir forest in Qilian Mountains” mainly from national investment, which is only to be used for protection, maintenance, construction, and enlargement of forest area, and also uniformly planned, controlled, and arranged. Construction of water reservoir forest in Qilian Mountains should be one of the national ecological projects and receive long-term investment. Secondly, compensation for ecological profit should be collected from mining and manufacturing companies, sectors, and individuals of recipient area according to their income. Thirdly, those who destruct ecology by haphazard development, felling, or herding should not only pay fine and take the responsibility of recovering ecology, but also pay compensation money that will be incorporated into “fund for protection of water reservoir forest in Qilian Mountains”.



White-lipped deer in water reservoir forest of Qilian Mountains



Water reservoir forest of Qilian Mountains



New-built house of the Yugu who
sedentarized for agricultural development



Costume of the Yugu



Desert area around Sunan Minghua Development District

-Translated/summarized by OZAKI, Takahiro(Kagoshima University)